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ABSTRACT

A project was undertaken to develop a series of program-specific vocational locator tests (PSVLTs) that would consist of subject-specific questions in three academic disciplines--writing, reading, and mathematics--for use in predicting vocational students' success in their vocational programs. As a prelude to constructing the tests, project staff developed an item bank of content area questions designed to assess student abilities in the following basic skill areas: writing (capitalization, punctuation, spelling, parts of speech, parts of a sentence, usage and sentence structure, vocabulary, and reference skills); reading skills; and mathematics skills (whole numbers, fractions, decimals, percentages, and algebra). After developing approximately 400 such questions and after determining the skill level categories and subcategories of each area addressed, project staff developed tests for use in the school's motorcycle repair, secretarial science, and criminal justice programs. Beginning in the fall of 1982, these tests will be used to determine which students are deficient in specific academic areas and to refer them to specific remedial instructional programs. Depending upon the success of these pilot locator tests, the college will explore expanding the PSVLTs to all vocational programs offered by the institution. (The three tests and user instructions are appended.) (MN)

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ED229595

FINAL REPORT

Project No. 82-ALT(163)ER

# DEVELOPMENT OF A PROGRAM SPECIFIC LOCATOR TEST

Curriculum Development Project
Conducted Under Public Law 94-482

The project reported herein was performed pursuant to a grant from the Research Coordinating Unit of the Washington State Commission for Vocational Education. Contractors undertaking such projects under the Commission for Vocational Education sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Commission for Vocational Education position or policy.

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August 1982

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## SUMMARY

In January 1982, Fort Steilacoom Community College received a grant from the Commission for Vocational Education to develop a series of Program Specific Vocational Locator Tests (PSVLT), see Appendix A.

The primary objective of this project was to create an item bank of subject specific questions in three academic disciplines (writing, reading and mathematics). A PSVLT for each vocational program could then be created by selecting specific questions from this item bank. The PSVLT will be used by FSCC to predict vocational student success in their vocational program.

Sub-objectives of the project are as follows:

1. To have the PSVLTs available for use prior to Fall Quarter, 1982.
2. To develop PSVLTs that need not be timed and that require minimal security precautions .
3. To develop PSVLTs that can be completed in two hours or less.
4. To develop PSVLTs that are easily modifiable and resilient to program change.
5. To develop PSVLTs that are inexpensive to administer and easy to score.
6. To develop PSVLTs that very specifically indicate areas where remediation is needed.

Development of the locator test was concurrent with changes in the Fort Steilacoom Community College Developmental Education Program.

Vocational students whose locator test scores indicate a specific area of academic weakness will now have an opportunity to receive remediation in that specific academic area. For example, a student whose PSVLT indicates a weakness in spelling, can now receive remediation in that specific area.

The grant called for the development of the subject specific item bank and three or four pilot locator tests. These locator tests measured only those academic areas indicated by the program directors to be important for satisfactory progress and completion of the vocational program. The Locator Test will be used to assess those skills which a student is presumed to possess as he/she enters the program, not skills which are taught or reviewed in the program.

The locator test will be modified as test results indicate, e.g.; test questions will be added or deleted depending on their validity as predictors of satisfactory progress.

Fort Steilacoom Community College will explore the possibility of expanding the PSVLTs to each of our vocational programs by Fall Quarter 1984.

PROJECT DESCRIPTION

On January 4, 1982, Fort Steilacoom Community College received notification from the Commission for Vocational Education that FSCC had been awarded grant monies for the development of a series of Program Specific Vocational Locator Tests, (PSVLTs). The period of this grant extended from December 30, 1981 through June 30, 1982. Subsequent to the grant award, and for reasons outlined below, the deadline for completing the work was extended to August 31, 1982.

The primary objective of this project was to create an item bank of subject specific questions in three academic disiplines, (writing, reading and mathematics). A Program Specific Vocational Locator Test for each vocational program could then be created by selecting specific questions from this item bank that would predict satisfactory student progress in their vocational program.

Sub-objectives of the project are as follows:

1. To have the PSVLTs available for use prior to Fall Quarter 1982.

2. To develop PSVLTs that need not be timed and that require minimal security precautions.

3. To develop PSVLTs that can be completed in two hours or less.

4. To develop PSVLTs that are easily modifiable and resilient to program change.

5. To develop PSVLTs that are inexpensive to administer and easy to store.

6. To develop PSVLTs that very specifically indicates areas where remediation is needed.

Development of this item bank and pilot locator tests was concurrent with changes in the Developmental Education Program at Fort Steilacoom Community College. It was necessary to delay the Locator Test Project until the parameters of the new Developmental Education Program were firmly established. Because of this interdependence of the two programs and the need for continuity between the Locator Test and the Developmental Education Program, the Commission for Vocational Education allowed Fort Steilacoom Community College to extend the deadline for completing the Locator Test Project until August 31, 1982.

On July 8, 1982, Dr. Delight Willing was hired as Test Conslultant for the project. Also on July 8th, Donna Miller-Parker was hired as Test Developer for the project. Dr. Willing and Ms. Parker together with Robert Benn, Project Director, Steve Wall, Associate Dean of Student Services, and Ken Hildebrant, Associate Dean of Instruction, worked

together to determine the direction and parameters of the locator test. The item bank form was chosen because of its versatility and ease at which additional locator tests could be developed from an existing bank of questions. Questions for this item bank were to be from three general academic disciplines. These included writing, reading, and mathematics (see Appendix B). These three general areas were further broken down into sub-categories as follows:

I. Writing
   a. Capitalization
   b. Punctuation
   c. Spelling
   d. Identifying parts of speech
   e. Identifying parts of a sentence
   f. Correct usage and sentence structure
   g. Vocabulary
   h. Reference skills

II. Reading
   a. Test A - grade level 5-7
   b. Test B - grade level 8-10
   c. Test C - grade level 11-college

III. Mathematics
   a. Whole numbers
   b. Fractions
   c. Decimals
   d. Percentages
   e. Basic algebra

Several questions for each of the sub-categories were created so as to accurately assess the individual student's knowledge. In all, the item bank contains approximately 400 questions which can be used to create individual locator tests.

Subsequent to determining the skill level catagories and sub-catagories, three vocational programs were chosen in which to develop pilot locator tests. These programs included, Motorcycle Repair, Secretarial Science and Criminal Justice. The programs were chosen because they represented three diverse vocational areas of study at FSCC and because the staff for these programs had expressed a need for such a testing instrument and a willingness to cooperate with the project staff.

The project director met with each of the program directors to determine the specific skills which a student is presumed to possess as he/she enters the program. These are not skills which will be taught or reviewed in the program. The degree of academic proficiency needed for the program was also determined, e.g.; tenth grade reading level for Secretarial Science. This information was used to select the specific item bank questions used in each of the pilot locator tests (see Appendix C, D & E).

User instructions for the development of new locator tests and modification of existing tests are included in the item bank (see Appendix F).

The locator test concept and the direction and parameters the test initially took was based on previous research conducted by Dr. Delight Willing. This research was also funded by a grant through the Commission for Vocational Education. The significant difference between the previous locator tests developed by Dr. Willing and those developed under the current grant, is that the current test uses subject specific questions that are general in nature which are taken from an item bank. An individual question may be found in one, several, or all of the locator tests depending on the need to access this academic area. This allows the institution to easily modify the locator test as programs change or to create new locator tests as programs are added.

The three pilot locator tests will be put into place beginning Fall Quarter 1982. Those students whose test indicates academic areas of deficiency will be advised to receive remediation through the Developmental Education Program. This remediation can either be in addition to the student's normal load or a student may desire to enter a remedial training program until the deficiency has been remediated.

Depending on the success of the three pilot locator tests, Fort Steilacoom Community College will explore expanding the PSVLTs to all vocational programs offered by the institution. These tests will provide Fort Steilacoom with a valuable tool which will be used to determine the academic competency of students in vocational programs. Those students who are deficient in specific academic areas will be able to receive specific remediation through the Developmental Education Program. The flexibility of this program which allows remediation of specific areas of deficiency is a crucial component of the overall project. For example, students deficient in spelling will be able to receive remediation in this specific area without having to enroll in a general composition class.

Administration of the locator tests will initially be left to the program instructors. Whether or not the tests are administered to individual students or to class size groups will also be left to individual instructors. One of the program directors indicated that he would like to administer the test to all entering students (after admission to the program). The other two directors indicated that the test would only be administered to those individuals having difficulty in the program.

The development of the Program Specific Locator Tests under this grant can easily be expanded to all vocational programs at Fort Steilacoom Community College or to any vocational program offered by other community colleges in the State.

TO: Instructors

RE: Locator Test Development Project

Attached is a list of basic skills in Reading, Writing, and Mathematics. This is a first step in our development of Program Specific Vocational Locator Tests (PSVLT's).

We are now attempting to identify those skills necessary for entrance into each of our programs. We want to test for those skills which a student is assumed to possess as he/she begins the program. These are skills which the instructor does not teach or review; a student must already have an understanding of them. For example, a student in Secretarial Science will probably need to enter with good basic spelling skills, while a student in Motorcycle Repair may not.

Please review this list of skills, keeping in mind your own program. Cross out those skills which are not necessary for students entering your program. Also cross out skills which are taught or reviewed in your classes. If there is an important entrance skill not listed, please add it to the appropriate category.

Thanks for your assistance at this stage of the project.

INSTRUCTOR NAME _____

PROGRAM TITLE _____

# WRITING SKILLS

I. Capitalization
- A. first word of a sentence
- B. names of people and animals, titles
- C. days and months
- D. cities, states, places, and areas of the country
- E. business firms and brand names
- F. building names
- G. historical events, peiods, and documents
- H. names of institutions and agencies
- J. titles of publications

II. Punctuation
- A. period
  1. at end of declarative sentence
  2. after abbreviations
- B. question mark
- C. exclamation point
- D. comma
  1. separating words and numbers in series
  2. with addresses and dates
  3. before a coordinating conjunction in a compound sentence
  4. setting off an appositive
  5. after a phrase at the beginning of a sentence
  6. after a dependent clause at the beginning of a sentence
  7. setting off parenthetical phrases (of course, for instance)
  8. before quotations
- E. semicolon
  1. between independent clauses
  2. in a series with commas
- F. colon
  1. in time expressions
  2. before formal quotations
  3. after business letter salutations
- G. apostrophe
  1. in a contraction
  2. in possessives
- H. quotation marks
- J. underlining titles

III. Spelling
- A. common rules
  1. ie-ei
  2. dropping e
  3. doubling consonant
  4. changing y to i
  5. making plurals
  6. adding endings
- B. commonly misspelled words

IV. Identifying parts of speech
- A. Nouns
- B. Pronouns
- C. Verbs
- D. Adjectives
- E. Adverbs
- F. Conjunctions
- G. Prepositions
- H. Interjections

V. Identifying parts of a sentence
- A. Subject
- B. Predicate
- C. Object
- D. Modifiers

VI. Identifying sentence faults
- A. Fragments
- B. Run-on sentences

VII. Subject-Verb Agreement

VIII. Usage
- A. Pronouns
- B. Verbs
- C. Adjective-Adverbs

IX. Clear Reference
- A. Pronouns
- B. Modifiers

X. Parallel Structure

XI. Vocabulary
- A. Words in context
- B. Synonyms
- C. Antonyms
- D. Homonyms

XII. Abbreviations

XIII. Alphabetizing

XIV. Using a dictionary

XV. Using reference materials

## READING SKILLS

I. Recognizing the main idea of a paragraph
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

II. Finding details in a paragraph
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

III. Distinguishing differences in details
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

IV. Making Inferences & Drawing Conclusions
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

V. Applying ideas
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

VI. Following written directions
   A. High level (12th grade)
   B. Mid level (10th grade)
   C. Low level (8th grade)

VII. Reading diagrams
   A. High level
   B. Mid level
   C. Low level

VIII. Reading tables, graphs, or charts
   A. High level
   B. Mid level
   C. Low level

# MATHEMATICS SKILLS

I. Whole numbers
- A. Addition
- B. Addition of money using $ and decimal point
- C. Subtraction
- D. Subtraction of money using $ and decimal point
- E. Multiplication
- F. Multiplication of money using $ and decimal point
- G. Division
- H. Division of money using $ and decimal point
- J. Computing correct change
- K. Computing averages

II. Decimals
- A. Reading and writing decimals
- B. Addition
- C. Subtraction
- D. Multiplication
- E. Division
- F. Rounding off decimals
- G. Comparing decimals
- H. Converting between decimals and fractions

III. Fractions
- A. Addition
  - 1. like
  - 2. unlike
- B. Subtraction
  - 1. like
  - 2. unlike
- C. Converting between improper fractions and mixed numbers
- D. Reducing common fractions
- E. Multiplication
- F. Division
- G. Converting between fractions and decimals

IV. Percentages
- A. Reading and writing percentages
- B. Converting decimal to percent
- C. Converting fraction to percent
- D. Finding percent of a total
- E. Solving for part
- F. Solving for total
- G. Working with percents less than 1
- H. Working with percents greater than 100

V. Ratios and proportions

VI. Beginning algebra
- A. Using common formulas
- B. Using exponents
- C. Solving equations
- D. Using the Pythagorean theorem
- E. Finding square roots
- F. Simplifying algebraic expressions

VII. Word problems: reasoning using selected skills

MOTORCYCLE REPAIR
PROGRAM SPECIFIC VOCATIONAL LOCATOR TEST
FORT STEILACOOM COMMUNITY COLLEGE

Name _____ Date _____

Address _____ Phone _____

Coursework in Motorcycle Repair requires a student to have some basic skills in English, Reading, and Mathematics. This is a check on those skills. It is not a test, so you cannot fail it. Do your best, trying to answer all of the questions. Whenever possible, show your work on the test pages.

## Writing Skills

/16 I. Punctuation - In the following sentences, some of the necessary punctuation is missing. Write in the missing punctuation marks.

1. The bill which I received today was incorrect
2. Please remember to include your address and phone no on the appl form.
3. When will you be able to return the call
4. Stop that immediately
5. Jogging bicycling swimming and playing tennis are all very good sports for increasing heart and lung capacity.
6. The report must be delivered to 7000 144th Street Seattle WA as soon as possible.
7. Are you planning to go with us or will you drive your own car?
8. His most recent book Climbing to the Top has not been selling very well.
9. Carrying her shoes in her hand she tiptoed across the floor and up the stairs.
10. Even though we had made reservations we had to wait nearly an hour.
11. All future payments of course will be made directly to the accounting office.
12. The director announced "That subject will be discussed at our next meeting."

13. Ill be ready when its time to go.

14. Her best friends house was burglarized two weeks ago.

15. Wasn't it Patrick Henry who said Give me liberty or give me death asked Susan.

16. William Gibson's play, The Miracle Worker, tells the story of Helen Keller.

/10 II. Spelling - Circle any misspelled words below:

| | | | | |
|---|---|---|---|---|
| 17. | niece | science | recieve | believe |
| 18. | believeable | mileage | dancing | grateful |
| 19. | paded | referral | ribbed | rained |
| 20. | keys | skies | babys | busily |
| 21. | roofs | potatoes | brushs | knives |
| 22. | committee | absense | naturally | mysterious |
| 23. | interfear | discourage | disappear | Februarry |
| 24. | paid | surgeon | athelete | chocolate |
| 25. | temperature | tongue | paralell | vacuum |
| 26. | bracelet | layed | gauge | baggage |

/4 III. Correcting Sentence Faults - By changing capitalization and punctuation, correct the following sentence fragments and run-on sentences:

It is a well-known fact. That camels can go many days without water. Many people believe that camels store water in their humps. The camel's body does not do this, instead it conserves water.

( /6 IV. Vocabulary and Reference Skils

28. Which of the words below could best be substituted for the underlined word in this sentence?

If that table is occupied, use the adjacent one.

satisfactory usable immoral nearby

29. Which of these words has a meaning nearly the same as meticulous?

beautiful careful delightful painful

30. Which of the following word(s) could be abbreviated man.?

maintenance mechanic manual manufacture menial

31. Write the following words in alphabetical order on the line below:

polygon pursue prepare pharyrx pleasure pharmacy

_____

32. When you look in a dictionary, you see the entry scent (sent). The word in parentheses is probably a) the pronunciation of the word b) an easier spelling of the word c) the original word the other word comes from.

33. If you want to know what year a book was published, you should look a) in the index b) on the last page of the book c) on the back of the title page.

YOU SHOULD HAVE A COPY OF
READING SKILLS TEST C

## Reading Skills

/12 I. Paragraph Comprehension

| | | |
|---|---|---|
| 1. _____ | 5. _____ | 9. _____ |
| 2. _____ | 6. _____ | 10. _____ |
| 3. _____ | 7. _____ | 11. _____ |
| 4. _____ | 8. _____ | 12. _____ |

/3 II. Reading a Diagram

| | | |
|---|---|---|
| 13._____ | 14. _____ | 15. _____ |

/5 III. Differences in Details

Circle the item on each line which is not the same:

| | | | | |
|---|---|---|---|---|
| 17. | 854215 | 854215 | 854215 | 852415 |
| 18. | D6F-8YB9 | D6F-8YB9 | D6F-89YB | D6F-8YB9 |
| 19. | $171.53 | $171.35 | $171.53 | $171.53 |
| 20. | December 7,1976 | December 7,1976 | December 7,1976 | December 7,1876 |
| 21. | 761108 | 761018 | 761018 | 761018 |

IV. Following Written Directions

22. Follow these directions to draw a geometric figure:

Beginning at the dot, draw a line down 1½ inches, to the right 2 inches, up ½ inch, to the left 1 inch, up ½ inch, to the left ½ inch, up ½ inch, and to the left ½ inch.

## Mathematics Skills

Show all work on the test paper:

/10 I. Whole Numbers

1. $\begin{array}{r} 1{,}785 \\ +\ 209 \end{array}$

2. $\begin{array}{r} \$5{,}687.43 \\ +2{,}794.78 \end{array}$

3. $3{,}000 - 999 =$

4. Last month a family had an electric bill of $116.42. They will receive a discount of $5.82 for paying within 10 days. What will the bill be if they pay quickly?

5. $\begin{array}{r} 121 \\ \times 208 \end{array}$

6. $\$.48 \times 36 =$

7. $264 \div 11 =$

8. $11 \overline{)\$35.97}$

9. $\begin{array}{r} \$\ 12.71 \\ -\ 2.66 \end{array}$

10. A family decides to find what its average monthly food bill is. For the past six months, the totals have been: $247.38, $279.21, $198.72, $204.16, $263.57, and $188.12. What is their average bill?

/15 II. Fractions

11. Change these mixed numbers to improper fractions:

$4\frac{2}{9} =$ $\quad 14\frac{6}{10} =$ $\quad 138\frac{3}{8} =$

12. Write these fractions in simplest form:

$3\frac{9}{81} =$ $\quad \frac{54}{72} =$ $\quad \frac{3}{15} =$

13. A group of dieters are comparing their weight losses for the week. Dieter A lost 2½ lbs., dieter B lost 3 lbs., dieter C lost 1½ lbs., and dieter D lost only ½ lb. How much weight did they lose all together?

14. $8\frac{1}{7} + 4\frac{1}{6} =$

15. 21 1/3 - 9 2/3 =

16. A large soup recipe calls for 6½ quarts of liquid. If the cook puts in 2½ quarts of tomato juice, how much of another liquid must be added?

17. 2/5 x 5/8 =

18. $2\frac{2}{7} \div 1\frac{1}{2} =$

19. Express these fractions as decimals:

$\frac{1}{3} =$ $7\frac{5}{6} =$ $28\frac{7}{11} =$

/14 III. Decimals

20. Write these decimals as words:

.0004 = _____

.7 = _____

200.02 = _____

21. Write these decimals as fractions in simplest form:

.500 = 55.05 = 3.007 =

22. A delivery van one morning travels 10.3 miles to the first stop, 2.4 miles to the second stop, 5.9 miles to the third stop, 12.2 miles to the next stop, and 7.5 miles back to the office. How many miles did it travel?

23. 62 - 17.054 =

24. .06 x .06 =

25. .96 ÷ .08 =

26. Round off these decimals to two places:

21.997 =

.306 =

4.0083 =

27. Place the following numbers in order starting with the largest and ending with the smallest: 90.1, .0901, 9.01, .901, 901

___/7 IV. Beginning Algebra

28. Find the missing number:

$\frac{3}{4} = \frac{?}{80}$

29. $D = rt$
$r = 55$
$D = 176$
$t =$ _____

30. Find the value of each of the following:

$2^2 + 3^3 =$ $9^4 =$ $(3^3)^2 =$

31. If $X = 4$ and $Y = \frac{5}{4}$, then

$3X + 2XY + 3(Y-X) =$

32. Solve the following equation for X:

$XY + C = A - B$

$X =$ _____

SECRETARIAL SCIENCE
PROGRAM SPECIFIC VOCATIONAL LOCATOR TEST
FORT STEILACOOM COMMUNITY COLLEGE

Name _____ Date _____

Address _____ Phone # _____

Coursework in Secretarial Science requires a student to have some basic skills in English, Reading, and Mathematics. This is a check on those skills. It is not a test, so you cannot fail it. Do your best, trying to answer all of the questions. Whenever possible, show your work on the test pages.

## Writing Skills

____/9 I. Capitalization - In the following sentences, cross out letters which should be capitalized and write in the capital letter above:

1. many people prefer to work outdoors because they feel more free.
2. I suggest that you call dr. andrews, the new veterinarian, to ask about blackie's injured leg.
3. The deadline for that project is friday, april 30.
4. north carolina is not actually in the northern u.s.; it is in the east.
5. The new soap, sudsy, is manufactured by neilson personal products, inc.
6. Most people have hears of the eiffel tower, but not many have actually visited there.
7. Which came first -- the dark ages or the middle ages?
8. An agency which collects money for many different organizations in the community is known here as united way.
9. A very interesting article entitled "journey through time" was recently published in national geographic magazine.

____/20 II. Punctuation - In the following sentences, some of the necessary punctuation is missing. Write in the missing punctuation marks.

10. She asked me if many Americans enjoy bowling as a hobby
11. The apt is located at 1472 13th St in Big Falls.
12. How many times has he called to ask for a contribution

13. Look out That car is coming right at you
14. The instructor told us we will need graph paper drawing tools and measuring tools.
15. Send your request before August 15 to 5780 Prince Avenue Chicago Illinois.
16. They had been working hard for an hour but in that time they had accomplished very little.
17. It was the office manager Ms. Cowan who called and offered me the job.
18. In the future all telephone inquiries will be handles by the assistant to the director.
19. While I was talking on the telephone my cat knocked over a lamp.
20. This particular model for instance is available in three different colors.
21. Last night my son said "Let me fix dinner for you."
22. The students hadn't planned their time very well however they did manage to complete the assignment on time.
23. The company's offices in Chicago Illinois Houston Texas Baltimore Maryland and Sacramento California have all been recently opened.
24. We synchronized our watches at 3 00 and agreed to meet again at 5 15.
25. You'll need to bring the following equipment sleeping bag toiletries food and clothing.
26. He cant understand why the problem is his and not ours.
27. All of the childrens parents were invited to todays program.
28. We'll see you tomorrow Mark said and we can talk about it then.
29. For nearly 40 years, Gone With the Wind held the record as the most successful movie ever made.

/10 III. Spelling - Circle any misspelled words below:

| | | | |
|---|---|---|---|
| 30. niece | science | recieve | believe |
| 31. amazement | confuseing | driving | truly |
| 32. running | taxxed | stopping | difference |
| 33. donkies | journeys | easily | galaxies |
| 34. matches | tomatos | halves | chiefs |
| 35. ache | jealous | mischevious | cooperative |
| 36. liquor | kindegarden | mechanical | delicious |
| 37. excede | famous | ninth | ninety |
| 38. breathe | familiar | maneuver | neccessary |
| 39. literature | irrevelant | exercise | imagine |

/17 IV. Identifying Parts of Speech - A part of speech is listed in front of the following sentences. The number following the part of speech tells you how many times that part of speech appears in the sentence. Underline the word or words in the sentence that represent that part of speech.

Example: Adjective (2) The mathematics instructor wore a pin-stripe suit.

40. Noun (2) They conducted experiments and then published their findings.

41. Pronoun (3) He explained that we had thirty minutes to finish it.

42. Verb (2) We believe English and math are necessary skills.

43. Adjective (2) Yesterday I used that electronic calculator.

44. Adverb (2) Shirley arrived late and left early.

45. Conjunction (3) I can neither sing nor dance, but I can tell jokes well.

46. Preposition (2) During the introduction, the supervisor walked through the door.

47. Interjection (1) Wow! I can't believe I really won!

___/3 V. Identifying Parts of a Sentence - Underline the sentence part which is indicated before the following sentences:

48. Subject -- Ms. Tower is our history teacher for spring semester.

49. Complete Predicate - Different complaint forms are required for different situations.

50. Direct Object -- Mr. Stevens teaches biology and math at our city high school.

___/5 VI. Correct Usage - Choose the best word to complete the sentences below:

51. Mr. Hastings, along with his entire family, (was, were) at the party.

52. Most of my friends have (his, their) own apartment.

53. Our boss gave John and (I, me) the first two weeks to present our project.

54. I have (gone, went) out for the evening and will be back about 11:30.

55. The patient told me he has been feeling (bad, badly) for several days.

___/5 VII. Vocabulary

56. Which of the words below could best be substituted in this sentence?
The liquid was so <u>viscous</u> that it was difficult to pour it into the jar. sticky harmful complex wild

57. Which of these words has a meaning nearly the same as <u>tentative</u>?
provisional conflicting simplified limited

58. Which of these words has a meaning nearly opposite to <u>excess</u>?
advantage surplus insufficient maximum

59. Which of these words best completes this sentence?
I was unable to (obtain, attain) a copy of that book.

60. Which of the following word(s) could be abbreviated <u>wk.</u>?
word week Wednesday work worst

/3 VIII. Using Reference Materials

61. Write the following words in alphabetical order on the line below:

beaker benign brevity beagle blade buzzer

_____

62. When you look up a word in the dictionary, you find the entry adz, adze. Which of those spellings is correct?

a) adz b) adze c) both are correct

63. To find out whether your library has a copy of The Adventures of Huckleberry Finn, you would look in the card catalog under the letter a) T b) A c) H

YOU SHOULD HAVE A COPY OF
READING SKILLS TEST B

## Reading Skills

/12 I. Paragraph Comprehension

| | | |
|---|---|---|
| 1. _____ | 5. _____ | 9. _____ |
| 2. _____ | 6. _____ | 10. _____ |
| 3. _____ | 7. _____ | 11. _____ |
| 4. _____ | 8. _____ | 12. _____ |

II. Reading a Diagram

/3 13. _____ 14. _____ 15. _____

III. Differences in Details

/5 16. Circle the item on each line which is not the same:

| | | |
|---|---|---|
| Revere, P.A. | Revere, P.A. | Revere, P.A. |
| Northgate, Miss. | Northgate, Miss. | Northgate, Wis. |
| 623248-989 | 623248-989 | 622348-989 |
| FLF-4C1 | FLF-4T1 | FLF-4C1 |
| April 13, 1972 | April 13, 1982 | April 13, 1982 |

IV. Following Written Directions

Follow these directions to draw a geometric figure:

1) Start at the dot. 2) Draw a line down about 1 inch. 3) Continue the line 1½ inches to the right. 4) Continue the line 1 inch up. 5) Continue the line ½ inch to the left. 6) Continue the line down ½ inch. 7) Continue the line ½ inch to the left. 8) Continue the line ½ inch up. 9) Continue the line ½ inch to the left.

## Mathematics Skills

Show all work on the test paper:

/10 I. Whole Numbers

1. $\begin{array}{r} 403 \\ +\ 26 \\ \hline \end{array}$

2. $\begin{array}{r} \$29.95 \\ +\ 7.83 \\ \hline \end{array}$

3. $\begin{array}{r} 1{,}923 \\ -\ 408 \\ \hline \end{array}$

4. $\$18.00 - \$2.38 =$

5. $42 \times 37 =$

6. $\begin{array}{r} \$24.95 \\ \times\ 17 \\ \hline \end{array}$

7. $42 \overline{)\ 546}$

8. Three couples decide to share equally the cost of renting a large cabin in the mountains. If the cost is $170.76 for two nights, what is the cost per person for one night?

9. If a driver puts $18.43 worth of gas into his/her car and gives the attendant $20.00, what amount of change should he/she receive?

10. Find the average of these numbers: 9, 13, 47, 23

/15 II. Fractions

11. Change these improper fractions to mixed numbers:

$\frac{7}{3} =$ $\frac{41}{5} =$ $\frac{27}{3} =$

12. Write these fractions in simplest form:

$\frac{3}{27} =$ $8\frac{4}{12} =$ $2\frac{5}{10} =$

13. $\frac{1}{3} + \frac{1}{3} =$

14. $\begin{array}{r} 13\ \frac{1}{2} \\ +\ 2\ \frac{1}{2} \\ \hline \end{array}$

15. $\begin{array}{r} 7/8 \\ -\ 1/8 \\ \hline \end{array}$

16. $4\ 1/6 - 2/3$

17. $1/2 \times 4/7 =$

18. $\frac{2}{3} \div \frac{1}{4} =$

19. Express these fractions as decimals:

$\frac{4}{5} =$ $31\frac{2}{9} =$ $4\frac{2}{3} =$

/15 III. Decimals

20. Write these decimals as numbers:

One hundred three and six hundredths _____

Twenty-nine and forty-seven thousandths _____

Twenty-five hundredths _____

21. Write these decimals as fractions in simplest form:

.25 = .125 = 2.375 = 9.2 =

22. 1.034 + .29 + 13.7 =

23. 21.63 - 7.42 =

24. $13.7 \times .0004$

25. $32 \overline{)40.64}$

26. Round off these decimals to two places:

123.0448 = 100.001 = 67.0738 =

27. Place the following numbers in order starting with the largest and ending with the smallest:

.0173, 1.73, .173, .00173, and 17.3

_____

___/16 IV. Percentages

28. Write these percentages as numbers with a percent sign:

eighty-five percent = _____

ten and three fourths percent = _____

two hundred and fifty percent = _____

29. Fill in the missing numbers:

| fraction | | decimal | | percent |
|---|---|---|---|---|
| 1/4 | = | | = | |
| | = | | = | 80% |
| | = | .375 | = | |
| | = | | = | 66 2/3 % |

30. 28% of 342 =

31. What percent is 14 of 42?

32. 72% of _____ = 180

33. ½% of $276.92 =

34. 375 = _____% of 75

___/5 V. Basic Algebra

35. Find the value of each of the following:

$15^2$ = $12^3$ = $(4^2)^3$ =

36. If A = 2 and B = 4, then 6AB + 5B =

37. Solve the following equation for X: X + Y - Z = Y + Z - A

X =

CRIMINAL JUSTICE
PROGRAM SPECIFIC VOCATIONAL LOCATOR TEST
FORT STEILACOOM COMMUNITY COLLEGE

Name _____ Date _____

Address _____ Phone _____

Coursework in Criminal Justice requires a student to have some basic skills in English, Reading, and Mathematics. This is a check on those skills. It is not a test, so you cannot fail it. Do your best, trying to answer all of the questions. Whenever possible, show your work on the test pages.

## Writing Skills

_____/8 I. Capitalization - In the following sentences, cross out letters which should be capitalized and write in the capital letter above:

1. he is the best worker in the entire company.
2. His uncle charlie also has a dog named charlie.
3. Is the 17th of october a sunday or a monday?
4. st. paul and minneapolis, minnesota, are widely known as the "twin cities."
5. I recently applied for a job at hampton industries, a manufacturer of electronic circuitry.
6. Our new offices are located downtown in the bramfield building.
7. The u.s. olympic committee helps to raise money for our athletes to compete in the olympics.
8. The author of walking across country was recently interviewed on that radio program.

_____/20 II. Punctuation - In the following sentences, some of the necessary punctuation is missing. Write in the missing punctuation marks.

9. She asked me if many Americans enjoy bowling as a hobby
10. Class reg will be held on Sept 11.

11. Are there still a lot of opportunities in that field
12. Help Stop that thief
13. My favorite recipe calls for nuts dried fruit coconut and sesame seeds.
14. July 4 1776 is celebrated as the beginning of our country.
15. The responsibility of the Congress is to make laws and the responsibility of the Supreme Court is to determine the constitutionality of those laws.
16. My new hobby gardening is not very expensive and is lots of fun.
17. After weeks of work we finally found the answer to the problem.
18. If you had called an hour earlier I might have been able to help you.
19. The best way to go it seems to me is by train.
20. Miss Reynolds stated directly "I will not be responsible for any changes."
21. This isn't exactly what I had in mind I really want something a little nicer.
22. That company has stores in Portland Oregon Boise Idaho Tacoma Washington and Anchorage Alaska.
23. The office is open from 9 00 a.m. to 5 30 p.m.
24. Please do as many of these chores as possible sweep the floor clean the refrigerator wash the car and do the laundry.
25. Theres no time to stop by your house.
26. The ladies room is located next to the womens shoe department.
27. Which one do you prefer I really want your honest opinion Richard told me.
28. Reading the New York Times from cover to cover every day would be a very time-consuming job for most people.

/10 III. Spelling - Circle any misspelled words below:

| | | | | |
|---|---|---|---|---|
| 29. | nieghbor | friend | weigh | height |
| 30. | tamely | gambleing | pavement | smoking |
| 31. | trained | gassed | snapped | referrence |
| 32. | Mondays | monkeys | applied | amplifyed |
| 33. | handkerchieves | pianos | taxes | desks |
| 34. | calander | vehicle | advertise | usually |
| 35. | bouquet | strength | orchestra | priviledge |
| 36. | discipline | permenant | yacht | tragedy |
| 37. | safety | precious | tryed | thorough |
| 38. | marriage | outrageous | vegetable | cubboard |

/14 IV. Sentence Structure and Usage

39. By changing capitalization and punctuation, correct the following sentence fragments and run-on sentences:

Cape Horn is the southernmost point. Of South America. Before the Panama Canal was built. People traveling by ship from the East Coast to the West Coast had to go "round the horn," this made the trip long and arduous.

Choose the best word to complete the sentences below:

40. Either the general or his staff (is, are) coming to the meeting.

41. Katherine, together with a friend, has started (her, their) own business.

42. The weekly quizzes are easy for (us, we) students.

43. After my dog (brang, brought) me the paper, she (lay, laid) on the rug at my feet.

44. Everything he cooked turned out (good, well) except the dessert, which tasted (terrible, terribly).

The sentences below are written poorly. Circle the word or words in each sentence which are the problem.

45. When he was only three, my father gave my brother a bicycle.

46. Eating our dinner, the dog never takes his eyes from us.

47. Last night I was walking my dog when suddenly he runs into the street.

/8 V. Vocabulary and Using Reference Materials

48. Which of the words below could best be substituted for the underlined word in this sentence?

We were not allowed to <u>retract</u> the statement; it will be published tomorrow. continue stretch cease withdraw

49. Which of these words has a meaning nearly the same as <u>characteristic</u>?

humorous informative typical sympathetic

50. Which of these words has a meaning nearly opposite to <u>congested</u>?

complicated filthy informed vacant

51. Which of these words best completes this sentence?

The (principal, principle) cause of alcoholism is unknown.

52. Which of the following word(s) could be abbreviated <u>oppty</u>.?

opportunity cooperative operate optional openly

53. Write the following words in alphabetical order on the line below:

disillusion correct discover golden harmful gorgeous

_____

54. After an entry in the dictionary you see the letter <u>n</u>. This means

a) the word is a negative one b) the word is a noun

c) the word is no longer used

55. Which of these would you probably <u>not</u> be able to find in an encyclopedia?

a) biographical information about Queen Elizabeth II

b) the names of the countries that border on Switzerland

c) the name of the person who first said, "These are the times that try men's souls."

YOU SHOULD HAVE A COPY OF
READING SKILLS TEST C

## Reading Skills

___/12 I. Paragraph Comprehension

| | | |
|---|---|---|
| 1. ____ | 5. ____ | 9. ____ |
| 2. ____ | 6. ____ | 10. ____ |
| 3. ____ | 7. ____ | 11. ____ |
| 4. ____ | 8. ____ | 12. ____ |

___/3 II. Reading a Diagram

13. ____ 14. ____ 15. ____

___/5 III. Differences in Details

Circle the item on each line which is not the same:

| | | | | |
|---|---|---|---|---|
| 17. | 854215 | 854215 | 854215 | 852415 |
| 18. | D6F-8YB9 | D6F-8YB9 | D6F-89YB | D6F-8YB9 |
| 19. | $171.53 | $171.35 | $171.53 | $171.53 |
| 20. | December 7, 1976 | December 7, 1976 | December 7, 1976 | December 7, 1876 |
| 21. | 761108 | 761018 | 761018 | 761018 |

IV. Following Written Directions

22. Follow these directions to draw a geometric figure:

Beginning at the dot, draw a line down 1½ inches, to the right 2 inches, up ½ inch, to the left 1 inch, up ½ inch, to the left ½ inch, up ½ inch, and to the left ½ inch.

## Mathematics Skills

Show all work on the test paper:

___/10 I. Whole Numbers

1. A local company which had 493 employees is planning to hire 125 more people to work on a special project. How many employees will they then have?

2. $\$ 5{,}687.43 + 2{,}794.78$

3. $1{,}923 - 408$

4. $\$8.71 - 98¢ =$

5. A certain worker drives 27 miles to work and another 27 miles home, five days a week. How many miles does this worker drive to and from work each week?

6. $\$24.95 \times 17$

7. $264 \div 11 =$

8. $\$94.56 \div 6 =$

9. $\$20.00 - 10.03$

10. What is the average of 121, 245, 164, and 114?

___/15 II. Fractions

11. Put these fractions in simplest form:

$4\frac{9}{4} =$ $2\frac{6}{5} =$ $\frac{42}{3} =$

12. Reduce these fractions:

$9\frac{14}{6} =$ $3\frac{4}{8} =$ $11\frac{12}{6} =$

13. 1 2/7 + 3 3/7 =

14. 8 1/7 + 4 1/6 =

15. A piece of metal stock is 56 7/8 inches long. A machinist cuts off 24 3/8 inches for use in a project. How long is the remaining piece of stock?

16. $32 - 7\frac{4}{5} =$

17. $1/2 \times 4/7 =$

18. A family of six has 3/4 of a cake left to eat for dessert. If each person gets an equal share, what part of a whole cake will he or she get?

19. Express these fractions as decimals:

$2\frac{3}{5} =$ $\frac{3}{7} =$ $13\frac{19}{21} =$

____/12 III. Decimals

20. Write these decimals as words:

2.5 = _____

.25 = _____

.025 = _____

21. A cabinet maker spent 2.8 hours one morning working on a cupboard and spent 3½ hours on it that afternoon. How many total hours did he/she work on the cupboard that day?

22. $1.034 + .29 + 13.7 =$

23. $21.63 - 7.42 =$

24. $13.7 \times .0004$

25. $32 \overline{)40.64}$

26. Round off these decimals to two places:

0.9989 = _____

54.717 = _____

4.194 = _____

27. Place the following numbers in order starting with the largest and ending with the smallest: 4.34, .0434, 43.4, .434, .00434

___/16 IV. Percentages

28. Write the following percentages in numbers with a percent sign:

forty-seven and a half percent =

one-quarter percent =

one hundred and twenty percent =

29. Fill in the missing numbers:

| fraction | | decimal | | percent |
|---|---|---|---|---|
| $2\frac{3}{4}$ | = | | = | |
| | = | | = | 10% |
| | = | .004 | = | |
| 5 | = | | = | |

30. Many salesmen receive commissions, which are a percentage of sales made. If a salesman sells something at a price of $3,750.00 and receives a 5% commission on the sale, how much will he or she receive?

31. 57 = _____% of 76

32. 327 = 15% of _____

33. 4 = ____% of 4000

34. 145% of 14.2 = _____

___/15 V. Basic Algebra

Some of the following are negative numbers:

35.
+ 3
- 15
+ 42
+ 13
+ - 28

36.
- 32
- - 16

37.
-17
x -11

38. $-2.3\overline{).092}$

39. Circle the expression which is not correct:

$13 < 47$ $\quad 22 > 7$ $\quad 23 > 79$ $\quad 6 < 19$

40. Find the missing number: ? : 3 = 12 : 18

41. $A = \frac{1}{2}BH \quad B = 9, \quad H = 4, \quad A =$ _____

42. Find the value of each of the following:

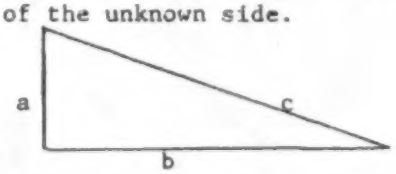
$7^5 =$ $\quad 1^3 \times 4^3 =$ $\quad (6 \times 7)^3 =$

43. Solve the following equation for X:

$3X - 4 + Y = 2Y + 5$

$X =$

44. The formula $A^2 + B^2 = C^2$ is used to find the length of one side of a right triangle when the lengths of the other two sides are known. Use this formula in the following problem to find the length of the unknown side.




a = 8
b = 15
c =

45. Find the following square roots:

$\sqrt{676} =$ $\quad \sqrt{196} =$

46. Simplify the following expression: $7AB - (3AB + AB)$

## Program Specific Vocational Locator Tests (PSVLT's)

This bank of items is designed to be used in the construction of Locator Tests for the entrance requirements of specific vocational programs. It was funded under a grant from the Commission for Vocational Education to Fort Steilacoom Community College.

## Item Bank

The item bank consists of approximately 400 test items on basic skills. Each identified skill has three possible test items. The list of basic skills included may be found in the section labeled "Item Bank Index." Individual test items are separated on index cards. Each item card also includes a description of the skill which it tests, along with the correct answer to the item.

## Test Item Rationale

Most of the items on the test are not multiple-choice. It was felt that a multiple choice test tests not only an applicant's knowledge and ability, but also his/her ability to guess at test answers. For this reason, all test takers should be encouraged to show as much work as possible on their test papers.

Instructors should not be given only an applicant's scores, but should be given the actual test paper so that he/she can see specific areas of weakness. It is hoped that this will give an instructor a better profile of an entering student.

## Use of the Item Bank

These test items may be chosen specifically to test for the entrance requirements of any vocational or collegiate program. Skill levels range from approximately fifth grade level to college level.

The first step in developing a new program locator is to look at the item bank index and choose those skills which are to be tested. Staff members from the particular program should be involved in the selection of skills to be included. Skills included on a locator test should be only those skills which a student is presumed to possess as he/she enters the program, not skills which are taught or reviewed in the program.

## Use of the Item Bank (continued)

Once the list of necessary entrance skills is determined, test items from the item bank may be selected. Usually one item per skill should be sufficient, since more items may make the test longer and more time consuming. However, if a stronger emphasis on a particular skill is desired, up to three items per skill are available.

Particular attention should be given to selection of items for the mathematics portion of the test. Most items numbered "C" are word problems. These may be included at random or some could be included as a separate word problem section.

Use of the Item Bank (continued)

After the item cards are selected, they may be arranged and typed into a comprehensive entrance test for the specific program. Notes about grade levels, skills which are being tested, and answers should not be included on the test. Directions for each section need be written only once, even though in most cases they are included on each item card for clarity.

Reading passages for the paragraph comprehension and diagram reading portions of the reading test do not need to be reproduced for each test paper, but may be distributed as "master copies" with only answer blanks included on the individual test papers. With this exception, students are to work directly on the test papers, showing as much work as possible.